



H1776US_sequ list .txt
SEQUENCE LISTING

<110> Friedrich-Alexander-Universität Erlangen-Nürnberg
<120> Peptide-based method for monitoring gene expression in a host cell
<130> H1776 US
<140> US 10/594,262
<141> 2006-09-25
<150> EP 04 00 7278.7
<151> 2004-03-26
<150> US 60/570,497
<151> 2004-05-13
<160> 33
<170> PatentIn version 3.3
<210> 1
<211> 17
<212> PRT
<213> Artificial sequence
<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"
<400> 1

Met Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser Gly Gly Gly
1 5 10 15

Ser

<210> 2
<211> 16
<212> PRT
<213> Artificial sequence
<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"
<400> 2

Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser Gly Gly Gly Ser
1 5 10 15

<210> 3
<211> 12
<212> PRT
<213> Artificial sequence
<220>
<223> /note="Description of artificial sequence: polypeptides with
Page 1

H1776US_sequ list .txt
affinity to the Tet repressor"

<400> 3

Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10

<210> 4

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 4

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Gly Ser
20

<210> 5

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 5

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Ala Ser
1 5 10 15

Gly Gly Gly Ser
20

<210> 6

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 6

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ala
1 5 10 15

Gly Gly Gly Ser
20

H1776US_sequ list .txt

<210> 7
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 7

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Arg Gly Ser
20

<210> 8
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 8

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Asp Gly Gly Leu
20

<210> 9
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 9

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Glu Gly Ser
20

<210> 10
<211> 20
<212> PRT
<213> Artificial sequence

H1776US_sequ list .txt

<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"

<400> 10

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Gly Trp
20

<210> 11
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"

<400> 11

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Cys Ser
20

<210> 12
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"

<400> 12

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Asp Ser
20

<210> 13
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"

<400> 13

H1776US_sequ list .txt

Ser Gly Gly Ala Trp Thr Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Arg Ser
20

<210> 14
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 14

Ser Gly Gly Ala Trp Thr Trp Asn Ala Phe Ala Phe Ala Ala Pro Ser
1 5 10 15

Gly Gly Gly Ser
20

<210> 15
<211> 29
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 15

Ala Val Ser Tyr Thr His Leu Gly Gly Ala Gly Gly Ala Trp Thr Trp
1 5 10 15

Asn Ala Tyr Ala Phe Ala Ala Pro Ser Gly Gly Gly Ser
20 25

<210> 16
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with
affinity to the Tet repressor"

<400> 16

Ala Val Ser Tyr Thr His Leu Ser Gly Gly Ala Gly Gly Ala Trp Thr
1 5 10 15

Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser Gly Gly Gly Ser
Page 5

20

<210> 17
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: polypeptides with affinity to the Tet repressor"

<400> 17

Leu Ser Leu Ile His Ile Ser Gly Gly Ala Ser Gly Gly Ala Trp Thr
1 5 10 15

Trp Asn Ala Tyr Ala Phe Ala Ala Pro Ser Gly Gly Gly Ser
20 25 30

<210> 18
<211> 207
<212> PRT
<213> E. coli

<400> 18

Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu
1 5 10 15

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys
35 40 45

Arg Ala Leu Leu Asp Ala Leu Ala Ile Glu Met Leu Asp Arg His His
50 55 60

Thr His Phe Cys Pro Leu Glu Gly Glu Ser Trp Gln Asp Phe Leu Arg
65 70 75 80

Asn Asn Ala Lys Ser Phe Arg Cys Ala Leu Leu Ser His Arg Asp Gly
85 90 95

Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys Gln Tyr Glu Thr
100 105 110

Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser Leu Glu
115 120 125

Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys
130 135 140

H1776US_sequ list .txt

Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr
145 150 155 160

Pro Thr Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu
165 170 175

Phe Asp His Gln Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu
180 185 190

Ile Ile Cys Gly Leu Glu Lys Gln Leu Lys Cys Glu Ser Gly Ser
195 200 205

<210> 19

<211> 335

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: tTA (TetR-VP16)"

<400> 19

Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu
1 5 10 15

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys
35 40 45

Arg Ala Leu Leu Asp Ala Leu Ala Ile Glu Met Leu Asp Arg His His
50 55 60

Thr His Phe Cys Pro Leu Glu Gly Glu Ser Trp Gln Asp Phe Leu Arg
65 70 75 80

Asn Asn Ala Lys Ser Phe Arg Cys Ala Leu Leu Ser His Arg Asp Gly
85 90 95

Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys Gln Tyr Glu Thr
100 105 110

Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser Leu Glu
115 120 125

Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys
130 135 140

H1776US_sequ list .txt

Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr
145 150 155 160

Pro Thr Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu
165 170 175

Phe Asp His Gln Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu
180 185 190

Ile Ile Cys Gly Leu Glu Lys Gln Leu Lys Cys Glu Ser Gly Ser Ala
195 200 205

Tyr Ser Arg Ala Arg Thr Lys Asn Asn Tyr Gly Ser Thr Ile Glu Gly
210 215 220

Leu Leu Asp Leu Pro Asp Asp Asp Ala Pro Glu Glu Ala Gly Leu Ala
225 230 235 240

Ala Pro Arg Leu Ser Phe Leu Pro Ala Gly His Thr Arg Arg Leu Ser
245 250 255

Thr Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His Leu Asp
260 265 270

Gly Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp
275 280 285

Leu Asp Met Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro
290 295 300

His Asp Ser Ala Pro Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe
305 310 315 320

Glu Gln Met Phe Thr Asp Ala Leu Gly Ile Asp Glu Tyr Gly Gly
325 330 335

<210> 20

<211> 248

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: tTA2 (TetR-FFF)"

<400> 20

Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu
1 5 10 15

H1776US_sequ list .txt

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys
35 40 45

Arg Ala Leu Leu Asp Ala Leu Ala Ile Glu Met Leu Asp Arg His His
50 55 60

Thr His Phe Cys Pro Leu Glu Gly Glu Ser Trp Gln Asp Phe Leu Arg
65 70 75 80

Asn Asn Ala Lys Ser Phe Arg Cys Ala Leu Leu Ser His Arg Asp Gly
85 90 95

Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys Gln Tyr Glu Thr
100 105 110

Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser Leu Glu
115 120 125

Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys
130 135 140

Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr
145 150 155 160

Pro Thr Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu
165 170 175

Phe Asp His Gln Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu
180 185 190

Ile Ile Cys Gly Leu Glu Lys Gln Leu Lys Cys Glu Ser Gly Gly Pro
195 200 205

Ala Asp Ala Leu Asp Asp Phe Asp Leu Asp Met Leu Pro Ala Asp Ala
210 215 220

Leu Asp Asp Phe Asp Leu Asp Met Leu Pro Ala Asp Ala Leu Asp Asp
225 230 235 240

Phe Asp Leu Asp Met Leu Pro Gly
245

<210> 21
<211> 475
<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: tTA-p65 (TetR-p65)"

<400> 21

Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu
1 5 10 15

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys
35 40 45

Arg Ala Leu Leu Asp Ala Leu Ala Ile Glu Met Leu Asp Arg His His
50 55 60

Thr His Phe Cys Pro Leu Glu Gly Glu Ser Trp Gln Asp Phe Leu Arg
65 70 75 80

Asn Lys Ala Lys Ser Phe Arg Cys Ala Leu Leu Ser His Arg Asp Gly
85 90 95

Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys Gln Tyr Glu Thr
100 105 110

Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser Leu Glu
115 120 125

Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys
130 135 140

Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr
145 150 155 160

Pro Thr Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu
165 170 175

Phe Asp His Gln Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu
180 185 190

Ile Ile Cys Gly Leu Glu Lys Gln Leu Lys Cys Glu Ser Gly Ser Ser
195 200 205

Glu Phe Gln Tyr Leu Pro Asp Thr Asp Asp Arg His Arg Ile Glu Glu
210 215 220

H1776US_sequ list .txt

Lys Arg Lys Arg Thr Tyr Glu Thr Phe Lys Ser Ile Met Lys Lys Ser
 225 230 235 240
 Pro Phe Ser Gly Pro Thr Asp Pro Arg Pro Pro Pro Arg Arg Ile Ala
 245 250 255
 Val Pro Ser Arg Ser Ser Ala Ser Val Pro Lys Pro Ala Pro Gln Pro
 260 265 270
 Tyr Pro Phe Thr Ser Ser Leu Ser Thr Ile Asn Tyr Asp Glu Phe Pro
 275 280 285
 Thr Met Val Phe Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu Ala
 290 295 300
 Pro Ala Pro Pro Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro Ala
 305 310 315 320
 Pro Ala Met Val Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro Val
 325 330 335
 Leu Ala Pro Gly Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys Pro
 340 345 350
 Thr Gln Ala Gly Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu Gln
 355 360 365
 Phe Asp Asp Glu Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp Pro
 370 375 380
 Ala Val Phe Thr Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln Gln
 385 390 395 400
 Leu Leu Asn Gln Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro Met
 405 410 415
 Leu Met Glu Tyr Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala Gln
 420 425 430
 Arg Pro Pro Asp Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu Pro
 435 440 445
 Asn Gly Leu Leu Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp Met
 450 455 460
 Asp Phe Ser Ala Leu Leu Ser Gln Ile Ser Ser
 465 470 475

H1776US_sequ list .txt

<210> 22
 <211> 360
 <212> PRT
 <213> E. coli

<400> 22

Met Lys Pro Val Thr Leu Tyr Asp Val Ala Glu Tyr Ala Gly Val Ser
 1 5 10 15

Tyr Gln Thr Val Ser Arg Val Val Asn Gln Ala Ser His Val Ser Ala
 20 25 30

Lys Thr Arg Glu Lys Val Glu Ala Ala Met Ala Glu Leu Asn Tyr Ile
 35 40 45

Pro Asn Arg Val Ala Gln Gln Leu Ala Gly Lys Gln Ser Leu Leu Ile
 50 55 60

Gly Val Ala Thr Ser Ser Leu Ala Leu His Ala Pro Ser Gln Ile Val
 65 70 75 80

Ala Ala Ile Lys Ser Arg Ala Asp Gln Leu Gly Ala Ser Val Val Val
 85 90 95

Ser Met Val Glu Arg Ser Gly Val Glu Ala Cys Lys Ala Ala Val His
 100 105 110

Asn Leu Leu Ala Gln Arg Val Ser Gly Leu Ile Ile Asn Tyr Pro Leu
 115 120 125

Asp Asp Gln Asp Ala Ile Ala Val Glu Ala Ala Cys Thr Asn Val Pro
 130 135 140

Ala Leu Phe Leu Asp Val Ser Asp Gln Thr Pro Ile Asn Ser Ile Ile
 145 150 155 160

Phe Ser His Glu Asp Gly Thr Arg Leu Gly Val Glu His Leu Val Ala
 165 170 175

Leu Gly His Gln Gln Ile Ala Leu Leu Ala Gly Pro Leu Ser Ser Val
 180 185 190

Ser Ala Arg Leu Arg Leu Ala Gly Trp His Lys Tyr Leu Thr Arg Asn
 195 200 205

Gln Ile Gln Pro Ile Ala Glu Arg Glu Gly Asp Trp Ser Ala Met Ser
 210 215 220

H1776US_sequ list .txt

Gly Phe Gln Gln Thr Met Gln Met Leu Asn Glu Gly Ile Val Pro Thr
225 230 235 240

Ala Met Leu Val Ala Asn Asp Gln Met Ala Leu Gly Ala Met Arg Ala
245 250 255

Ile Thr Glu Ser Gly Leu Arg Val Gly Ala Asp Ile Ser Val Val Gly
260 265 270

Tyr Asp Asp Thr Glu Asp Ser Ser Cys Tyr Ile Pro Pro Ser Thr Thr
275 280 285

Ile Lys Gln Asp Phe Arg Leu Leu Gly Gln Thr Ser Val Asp Arg Leu
290 295 300

Leu Gln Leu Ser Gln Gly Gln Ala Val Lys Gly Asn Gln Leu Leu Pro
305 310 315 320

Val Ser Leu Val Lys Arg Lys Thr Thr Leu Ala Pro Asn Thr Gln Thr
325 330 335

Ala Ser Pro Arg Ala Leu Ala Asp Ser Leu Met Gln Leu Ala Arg Gln
340 345 350

Val Ser Arg Leu Glu Ser Gly Gln
355 360

<210> 23
<211> 350
<212> PRT
<213> Bacillus

<400> 23

Met Thr Gly Leu Asn Lys Ser Thr Val Ser Ser Gln Val Asn Thr Leu
1 5 10 15

Met Lys Glu Ser Met Val Phe Glu Ile Gly Gln Gly Gln Ser Ser Gly
20 25 30

Gly Arg Arg Pro Val Met Leu Val Phe Asn Lys Lys Ala Gly Tyr Ser
35 40 45

Val Gly Ile Asp Val Gly Val Asp Tyr Ile Asn Gly Ile Leu Thr Asp
50 55 60

Leu Glu Gly Thr Ile Val Leu Asp Gln Tyr Arg His Leu Glu Ser Asn
65 70 75 80

H1776US_sequ list .txt

Ser Pro Glu Ile Thr Lys Asp Ile Leu Ile Asp Met Ile His His Phe
85 90 95

Ile Thr Gln Met Pro Gln Ser Pro Tyr Gly Phe Ile Gly Ile Gly Ile
100 105 110

Cys Val Pro Gly Leu Ile Asp Lys Asp Gln Lys Ile Val Phe Thr Pro
115 120 125

Asn Ser Asn Trp Arg Asp Ile Asp Leu Lys Ser Ser Ile Gln Glu Lys
130 135 140

Tyr Asn Val Ser Val Phe Ile Glu Asn Glu Ala Asn Ala Gly Ala Tyr
145 150 155 160

Gly Glu Lys Leu Phe Gly Ala Ala Lys Asn His Asp Asn Ile Ile Tyr
165 170 175

Val Ser Ile Ser Thr Gly Ile Gly Ile Gly Val Ile Ile Asn Asn His
180 185 190

Leu Tyr Arg Gly Val Ser Gly Phe Ser Gly Glu Met Gly His Met Thr
195 200 205

Ile Asp Phe Asn Gly Pro Lys Cys Ser Cys Gly Asn Arg Gly Cys Trp
210 215 220

Glu Leu Tyr Ala Ser Glu Lys Ala Leu Leu Lys Ser Leu Gln Thr Lys
225 230 235 240

Glu Lys Lys Leu Ser Tyr Gln Asp Ile Ile Asn Leu Ala His Leu Asn
245 250 255

Asp Ile Gly Thr Leu Asn Ala Leu Gln Asn Phe Gly Phe Tyr Leu Gly
260 265 270

Ile Gly Leu Thr Asn Ile Leu Asn Thr Phe Asn Pro Gln Ala Val Ile
275 280 285

Leu Arg Asn Ser Ile Ile Glu Ser His Pro Met Val Leu Asn Ser Met
290 295 300

Arg Ser Glu Val Ser Ser Arg Val Tyr Ser Gln Leu Gly Asn Ser Tyr
305 310 315 320

Glu Leu Leu Pro Ser Ser Leu Gly Gln Asn Ala Pro Ala Leu Gly Met
325 330 335

H1776US_sequ list .txt

Ser Ser Ile Val Ile Asp His Phe Leu Asp Met Ile Thr Met
340 345 350

<210> 24
<211> 292
<212> PRT
<213> E. coli

<400> 24

Met Ala Glu Ala Gln Asn Asp Pro Leu Leu Pro Gly Tyr Ser Phe Asn
1 5 10 15

Ala His Leu Val Ala Gly Leu Thr Pro Ile Glu Ala Asn Gly Tyr Leu
20 25 30

Asp Phe Phe Ile Asp Arg Pro Leu Gly Met Lys Gly Tyr Ile Leu Asn
35 40 45

Leu Thr Ile Arg Gly Gln Gly Val Val Lys Asn Gln Gly Arg Glu Phe
50 55 60

Val Cys Arg Pro Gly Asp Ile Leu Leu Phe Pro Pro Gly Glu Ile His
65 70 75 80

His Tyr Gly Arg His Pro Glu Ala Arg Glu Trp Tyr His Gln Trp Val
85 90 95

Tyr Phe Arg Pro Arg Ala Tyr Trp His Glu Trp Leu Asn Trp Pro Ser
100 105 110

Ile Phe Ala Asn Thr Gly Phe Phe Arg Pro Asp Glu Ala His Gln Pro
115 120 125

His Phe Ser Asp Leu Phe Gly Gln Ile Ile Asn Ala Gly Gln Gly Glu
130 135 140

Gly Arg Tyr Ser Glu Leu Leu Ala Ile Asn Leu Leu Glu Gln Leu Leu
145 150 155 160

Leu Arg Arg Met Glu Ala Ile Asn Glu Ser Leu His Pro Pro Met Asp
165 170 175

Asn Arg Val Arg Glu Ala Cys Gln Tyr Ile Ser Asp His Leu Ala Asp
180 185 190

Ser Asn Phe Asp Ile Ala Ser Val Ala Gln His Val Cys Leu Ser Pro
195 200 205

H1776US_sequ list .txt

Ser Arg Leu Ser His Leu Phe Arg Gln Gln Leu Gly Ile Ser Val Leu
210 215 220

Ser Trp Arg Glu Asp Gln Arg Ile Ser Gln Ala Lys Leu Leu Leu Ser
225 230 235 240

Thr Thr Arg Met Pro Ile Ala Thr Val Gly Arg Asn Val Gly Phe Asp
245 250 255

Asp Gln Leu Tyr Phe Ser Arg Val Phe Lys Lys Cys Thr Gly Ala Ser
260 265 270

Pro Ser Glu Phe Arg Ala Gly Cys Glu Glu Lys Val Asn Asp Val Ala
275 280 285

Val Lys Leu Ser
290

<210> 25
<211> 194
<212> PRT
<213> E. coli

<400> 25

Met Pro Arg Pro Lys Leu Lys Ser Asp Asp Glu Val Leu Glu Ala Ala
1 5 10 15

Thr Val Val Leu Lys Arg Cys Gly Pro Ile Glu Phe Thr Leu Ser Gly
20 25 30

Val Ala Lys Glu Val Gly Leu Ser Arg Ala Ala Leu Ile Gln Arg Phe
35 40 45

Thr Asn Arg Asp Thr Leu Leu Val Arg Met Met Glu Arg Gly Val Glu
50 55 60

Gln Val Arg His Tyr Leu Asn Ala Ile Pro Ile Gly Ala Gly Pro Gln
65 70 75 80

Gly Leu Trp Glu Phe Leu Gln Val Leu Val Arg Ser Met Asn Thr Arg
85 90 95

Asn Asp Phe Ser Val Asn Tyr Leu Ile Ser Trp Tyr Glu Leu Gln Val
100 105 110

Pro Glu Leu Arg Thr Leu Ala Ile Gln Arg Asn Arg Ala Val Val Glu
115 120 125

H1776US_sequ list .txt

Gly Ile Arg Lys Arg Leu Pro Pro Gly Ala Pro Ala Ala Ala Glu Leu
130 135 140

Leu Leu His Ser Val Ile Ala Gly Ala Thr Met Gln Trp Ala Val Asp
145 150 155 160

Pro Asp Gly Glu Leu Ala Asp His Val Leu Ala Gln Ile Ala Ala Ile
165 170 175

Leu Cys Leu Met Phe Pro Glu His Asp Asp Phe Gln Leu Leu Gln Ala
180 185 190

His Ala

<210> 26
<211> 260
<212> PRT
<213> Streptomyces coelicolor
<400> 26

Met Met Ser Arg Gly Glu Val Arg Met Ala Lys Ala Gly Arg Glu Gly
1 5 10 15

Pro Arg Asp Ser Val Trp Leu Ser Gly Glu Gly Arg Arg Gly Gly Arg
20 25 30

Arg Gly Arg Gln Pro Ser Gly Leu Asp Arg Asp Arg Ile Thr Gly Val
35 40 45

Thr Val Arg Leu Leu Asp Thr Glu Gly Leu Thr Gly Phe Ser Met His
50 55 60

Arg Leu Ala Ala Glu Leu Asn Val Thr Ala Met Ser Val Tyr Trp Tyr
65 70 75 80

Val Asp Thr Lys Asp Gln Leu Leu Glu Leu Ala Leu Asp Ala Val Phe
85 90 95

Gly Glu Leu Arg His Pro Asp Pro Asp Ala Gly Leu Asp Trp Arg Glu
100 105 110

Glu Leu Arg Ala Leu Ala Arg Glu Asn Arg Ala Leu Leu Val Arg His
115 120 125

Pro Trp Ser Ser Arg Leu Val Gly Thr Tyr Leu Asn Ile Gly Pro His
130 135 140

H1776US_sequ list .txt

Ser Leu Ala Phe Ser Arg Ala Val Gln Asn Val Val Arg Arg Ser Gly
145 150 155 160

Leu Pro Ala His Arg Leu Thr Gly Ala Ile Ser Ala Val Phe Gln Phe
165 170 175

Val Tyr Gly Tyr Gly Thr Ile Glu Gly Arg Phe Leu Ala Arg Val Ala
180 185 190

Asp Thr Gly Leu Ser Pro Glu Glu Tyr Phe Gln Asp Ser Met Thr Ala
195 200 205

Val Thr Glu Val Pro Asp Thr Ala Gly Val Ile Glu Asp Ala Gln Asp
210 215 220

Ile Met Ala Ala Arg Gly Gly Asp Thr Val Ala Glu Met Leu Asp Arg
225 230 235 240

Asp Phe Glu Phe Ala Leu Asp Leu Leu Val Ala Gly Ile Asp Ala Met
245 250 255

Val Glu Gln Ala
260

<210> 27
<211> 215
<212> PRT
<213> Streptomyces coelicolor

<400> 27

Met Ala Lys Gln Asp Arg Ala Ile Arg Thr Arg Gln Thr Ile Leu Asp
1 5 10 15

Ala Ala Ala Gln Val Phe Glu Lys Gln Gly Tyr Gln Ala Ala Thr Ile
20 25 30

Thr Glu Ile Leu Lys Val Ala Gly Val Thr Lys Gly Ala Leu Tyr Phe
35 40 45

His Phe Gln Ser Lys Glu Glu Leu Ala Leu Gly Val Phe Asp Ala Gln
50 55 60

Glu Pro Pro Gln Ala Val Pro Glu Gln Pro Leu Arg Leu Gln Glu Leu
65 70 75 80

Ile Asp Met Gly Met Leu Phe Cys His Arg Leu Arg Thr Asn Val Val
85 90 95

H1776US_sequ list .txt

Ala Arg Ala Gly Val Arg Leu Ser Met Asp Gln Gln Ala His Gly Leu
100 105 110

Asp Arg Arg Gly Pro Phe Arg Arg Trp His Glu Thr Leu Leu Lys Leu
115 120 125

Leu Asn Gln Ala Lys Glu Asn Gly Glu Leu Leu Pro His Val Val Thr
130 135 140

Thr Asp Ser Ala Asp Leu Tyr Val Gly Thr Phe Ala Gly Ile Gln Val
145 150 155 160

Val Ser Gln Thr Val Ser Asp Tyr Gln Asp Leu Glu His Arg Tyr Ala
165 170 175

Leu Leu Gln Lys His Ile Leu Pro Ala Ile Ala Val Pro Ser Val Leu
180 185 190

Ala Ala Leu Asp Leu Ser Glu Glu Arg Gly Ala Arg Leu Ala Ala Glu
195 200 205

Leu Ala Pro Thr Gly Lys Asp
210 215

<210> 28
<211> 527
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: TraR-p65 fusion"
<400> 28

Met Glu Phe Gln Tyr Leu Pro Asp Thr Asp Asp Arg His Arg Ile Glu
1 5 10 15

Glu Lys Arg Lys Arg Thr Tyr Glu Thr Phe Lys Ser Ile Met Lys Lys
20 25 30

Ser Pro Phe Ser Gly Pro Thr Asp Pro Arg Pro Pro Pro Arg Arg Ile
35 40 45

Ala Val Pro Ser Arg Ser Ser Ala Ser Val Pro Lys Pro Ala Pro Gln
50 55 60

Pro Tyr Pro Phe Thr Ser Ser Leu Ser Thr Ile Asn Tyr Asp Glu Phe
65 70 75 80

H1776US_sequ list .txt

Pro Thr Met Val Phe Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu
85 90 95

Ala Pro Ala Pro Pro Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro
100 105 110

Ala Pro Ala Met Val Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro
115 120 125

Val Leu Ala Pro Gly Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys
130 135 140

Pro Thr Gln Ala Gly Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu
145 150 155 160

Gln Phe Asp Asp Glu Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp
165 170 175

Pro Ala Val Phe Thr Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln
180 185 190

Gln Leu Leu Asn Gln Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro
195 200 205

Met Leu Met Glu Tyr Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala
210 215 220

Gln Arg Pro Pro Asp Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu
225 230 235 240

Pro Asn Gly Leu Leu Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp
245 250 255

Met Asp Phe Ser Ala Leu Leu Ser Gln Ile Ser Ser Gly Ser Ala Arg
260 265 270

Gly Val Pro Lys Lys Lys Arg Lys Val Gly Ile Gln Glu Gly Ile Ser
275 280 285

Ala Ala Ser Arg Ser Met Gln His Trp Leu Asp Lys Leu Thr Asp Leu
290 295 300

Ala Ala Ile Glu Gly Asp Glu Cys Ile Leu Lys Thr Gly Leu Ala Asp
305 310 315 320

Ile Ala Asp His Phe Gly Phe Thr Gly Tyr Ala Tyr Leu His Ile Gln
325 330 335

H1776US_sequ list .txt

His Arg His Ile Thr Ala Val Thr Asn Tyr His Arg Gln Trp Gln Ser
340 345 350

Thr Tyr Phe Asp Lys Lys Phe Glu Ala Leu Asp Pro Val Val Lys Arg
355 360 365

Ala Arg Ser Arg Lys His Ile Phe Thr Trp Ser Gly Glu His Glu Arg
370 375 380

Pro Thr Leu Ser Lys Asp Glu Arg Ala Phe Tyr Asp His Ala Ser Asp
385 390 395 400

Phe Gly Ile Arg Ser Gly Ile Thr Ile Pro Ile Lys Thr Ala Asn Gly
405 410 415

Phe Met Ser Met Phe Thr Met Ala Ser Asp Lys Pro Val Ile Asp Leu
420 425 430

Asp Arg Glu Ile Asp Ala Val Ala Ala Ala Ala Thr Ile Gly Gln Ile
435 440 445

His Ala Arg Ile Ser Phe Leu Arg Thr Thr Pro Thr Ala Glu Asp Ala
450 455 460

Ala Cys Val Asp Pro Lys Glu Ala Thr Tyr Leu Arg Trp Ile Ala Val
465 470 475 480

Gly Lys Thr Met Glu Glu Ile Ala Asp Val Glu Gly Val Lys Tyr Asn
485 490 495

Ser Val Arg Val Lys Leu Arg Glu Arg Met Lys Arg Phe Asp Val Arg
500 505 510

Ser Lys Ala His Leu Thr Ala Leu Ala Ile Arg Arg Lys Leu Ile
515 520 525

<210> 29
<211> 654
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: Gal4-hpr-p65"
<400> 29

Met Asp Ser Gln Gln Pro Asp Leu Lys Leu Leu Ser Ser Ile Glu Gln
1 5 10 15

H1776US_sequ list .txt

Ala Cys Asp Ile Cys Arg Leu Lys Lys Leu Lys Cys Ser Lys Glu Lys
20 25 30

Pro Lys Cys Ala Lys Cys Leu Lys Asn Asn Trp Glu Cys Arg Tyr Ser
35 40 45

Pro Lys Thr Lys Arg Ser Pro Leu Thr Arg Ala His Leu Thr Glu Val
50 55 60

Glu Ser Arg Leu Glu Arg Leu Glu Gln Leu Phe Leu Leu Ile Phe Pro
65 70 75 80

Arg Glu Asp Leu Asp Met Ile Leu Lys Met Asp Ser Leu Gln Asp Ile
85 90 95

Lys Ala Leu Leu Glu Phe Pro Gly Val Asp Gln Lys Lys Phe Asn Lys
100 105 110

Val Arg Val Val Arg Ala Leu Asp Ala Val Ala Leu Pro Gln Pro Val
115 120 125

Gly Val Pro Asn Glu Ser Gln Ala Leu Ser Gln Arg Phe Thr Phe Ser
130 135 140

Pro Gly Gln Asp Ile Gln Leu Ile Pro Pro Leu Ile Asn Leu Leu Met
145 150 155 160

Ser Ile Glu Pro Asp Val Ile Tyr Ala Gly His Asp Asn Thr Lys Pro
165 170 175

Asp Thr Ser Ser Ser Leu Leu Thr Ser Leu Asn Gln Leu Gly Glu Arg
180 185 190

Gln Leu Leu Ser Val Val Lys Trp Ser Lys Ser Leu Pro Gly Phe Arg
195 200 205

Asn Leu His Ile Asp Asp Gln Ile Thr Leu Ile Gln Tyr Ser Trp Met
210 215 220

Ser Leu Met Val Phe Gly Leu Gly Trp Arg Ser Tyr Lys His Val Ser
225 230 235 240

Gly Gln Met Leu Tyr Phe Ala Pro Asp Leu Ile Leu Asn Glu Gln Arg
245 250 255

Met Lys Glu Ser Ser Phe Tyr Ser Leu Cys Leu Thr Met Trp Gln Ile
260 265 270

H1776US_sequ list .txt

Pro Gln Glu Phe Val Lys Leu Gln Val Ser Gln Glu Glu Phe Leu Cys
275 280 285

Met Lys Val Leu Leu Leu Leu Asn Thr Ile Pro Leu Glu Gly Leu Arg
290 295 300

Ser Gln Thr Gln Phe Glu Glu Met Arg Ser Ser Tyr Ile Arg Glu Leu
305 310 315 320

Ile Lys Ala Ile Gly Leu Arg Gln Lys Gly Val Val Ser Ser Ser Gln
325 330 335

Arg Phe Tyr Gln Leu Thr Lys Leu Leu Asp Asn Leu His Asp Leu Val
340 345 350

Lys Gln Leu His Leu Tyr Cys Leu Asn Thr Phe Ile Gln Ser Arg Ala
355 360 365

Leu Ser Val Glu Phe Pro Glu Met Met Ser Glu Val Ile Ala Gly Ser
370 375 380

Thr Pro Met Glu Phe Gln Tyr Leu Pro Asp Thr Asp Asp Arg His Arg
385 390 395 400

Ile Glu Glu Lys Arg Lys Arg Thr Tyr Glu Thr Phe Lys Ser Ile Met
405 410 415

Lys Lys Ser Pro Phe Ser Gly Pro Thr Asp Pro Arg Pro Pro Pro Arg
420 425 430

Arg Ile Ala Val Pro Ser Arg Ser Ser Ala Ser Val Pro Lys Pro Ala
435 440 445

Pro Gln Pro Tyr Pro Phe Thr Ser Ser Leu Ser Thr Ile Asn Tyr Asp
450 455 460

Glu Phe Pro Thr Met Val Phe Pro Ser Gly Gln Ile Ser Gln Ala Ser
465 470 475 480

Ala Leu Ala Pro Ala Pro Pro Gln Val Leu Pro Gln Ala Pro Ala Pro
485 490 495

Ala Pro Ala Pro Ala Met Val Ser Ala Leu Ala Gln Ala Pro Ala Pro
500 505 510

Val Pro Val Leu Ala Pro Gly Pro Pro Gln Ala Val Ala Pro Pro Ala

515

520

525

Pro Lys Pro Thr Gln Ala Gly Glu Gly Thr Leu Ser Glu Ala Leu Leu
530 535 540

Gln Leu Gln Phe Asp Asp Glu Asp Leu Gly Ala Leu Leu Gly Asn Ser
545 550 555 560

Thr Asp Pro Ala Val Phe Thr Asp Leu Ala Ser Val Asp Asn Ser Glu
565 570 575

Phe Gln Gln Leu Leu Asn Gln Gly Ile Pro Val Ala Pro His Thr Thr
580 585 590

Glu Pro Met Leu Met Glu Tyr Pro Glu Ala Ile Thr Arg Leu Val Thr
595 600 605

Gly Ala Gln Arg Pro Pro Asp Pro Ala Pro Ala Pro Leu Gly Ala Pro
610 615 620

Gly Leu Pro Asn Gly Leu Leu Ser Gly Asp Glu Asp Phe Ser Ser Ile
625 630 635 640

Ala Asp Met Asp Phe Ser Ala Leu Leu Ser Gln Ile Ser Ser
645 650

<210> 30

<211> 465

<212> PRT

<213> Artificial sequence

<220>

<223> /note="Description of artificial sequence: ZHFD1-FKBP fusion"

<400> 30

Met Asp Tyr Pro Ala Ala Lys Arg Val Lys Leu Asp Ser Arg Glu Arg
1 5 10 15

Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser
20 25 30

Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys Pro Phe
35 40 45

Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His Leu Thr
50 55 60

Thr His Ile Arg Thr His Thr Gly Gly Gly Arg Arg Arg Lys Lys Arg
65 70 75 80

H1776US_sequ list .txt

Thr Ser Ile Glu Thr Asn Ile Arg Val Ala Leu Glu Lys Ser Phe Leu
85 90 95

Glu Asn Gln Lys Pro Thr Ser Glu Glu Ile Thr Met Ile Ala Asp Gln
100 105 110

Leu Asn Met Glu Lys Glu Val Ile Arg Val Trp Phe Cys Asn Arg Arg
115 120 125

Gln Lys Glu Lys Arg Ile Asn Thr Arg Gly Val Gln Val Glu Thr Ile
130 135 140

Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val
145 150 155 160

Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser
165 170 175

Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val
180 185 190

Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg
195 200 205

Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His
210 215 220

Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu
225 230 235 240

Leu Lys Leu Glu Val Glu Gly Val Gln Val Glu Thr Ile Ser Pro Gly
245 250 255

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
260 265 270

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
275 280 285

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
290 295 300

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
305 310 315 320

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
Page 25

325

335

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
340 345 350

Glu Thr Arg Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg
355 360 365

Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met
370 375 380

Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro
385 390 395 400

Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu
405 410 415

Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser
420 425 430

Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro
435 440 445

His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Thr Ser
450 455 460

Tyr
465

<210> 31
<211> 303
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: FRB-p65 fusion"

<400> 31

Met Asp Tyr Pro Ala Ala Lys Arg Val Lys Leu Asp Ser Arg Ile Leu
1 5 10 15

Trp His Glu Met Trp His Glu Gly Leu Glu Glu Ala Ser Arg Leu Tyr
20 25 30

Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu Val Leu Glu Pro Leu
35 40 45

His Ala Met Met Glu Arg Gly Pro Gln Thr Leu Lys Glu Thr Ser Phe
50 55 60

H1776US_sequ list .txt

Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala Gln Glu Trp Cys Arg
 65 70 75 80
 Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu Leu Gln Ala Trp Asp
 85 90 95
 Leu Tyr Tyr His Val Phe Arg Arg Ile Ser Lys Thr Arg Asp Glu Phe
 100 105 110
 Pro Thr Met Val Phe Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu
 115 120 125
 Ala Pro Ala Pro Pro Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro
 130 135 140
 Ala Pro Ala Met Val Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro
 145 150 155 160
 Val Leu Ala Pro Gly Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys
 165 170 175
 Pro Thr Gln Ala Gly Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu
 180 185 190
 Gln Phe Asp Asp Glu Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp
 195 200 205
 Pro Ala Val Phe Thr Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln
 210 215 220
 Gln Leu Leu Asn Gln Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro
 225 230 235 240
 Met Leu Met Glu Tyr Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala
 245 250 255
 Gln Arg Pro Pro Asp Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu
 260 265 270
 Pro Asn Gly Leu Leu Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp
 275 280 285
 Met Asp Phe Ser Ala Leu Leu Ser Gln Ile Ser Ser Thr Ser Tyr
 290 295 300

H1776US_sequ list .txt

<211> 746
 <212> PRT
 <213> Artificial sequence
 <220>
 <223> /note="Description of artificial sequence: VgEcR from pVgRXR"
 <400> 32
 Met Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His Leu Asp
 1 5 10 15
 Gly Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp
 20 25 30
 Leu Asp Met Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro
 35 40 45
 His Asp Ser Ala Pro Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe
 50 55 60
 Glu Gln Met Phe Thr Asp Ala Leu Gly Ile Asp Glu Tyr Gly Gly Lys
 65 70 75 80
 Leu Leu Gly Thr Ser Arg Arg Ile Ser Asn Ser Ile Ser Ser Gly Arg
 85 90 95
 Asp Asp Leu Ser Pro Ser Ser Ser Leu Asn Gly Tyr Ser Ala Asn Glu
 100 105 110
 Ser Cys Asp Ala Lys Lys Ser Lys Lys Gly Pro Ala Pro Arg Val Gln
 115 120 125
 Glu Glu Leu Cys Leu Val Cys Gly Asp Arg Ala Ser Gly Tyr His Tyr
 130 135 140
 Asn Ala Leu Thr Cys Gly Ser Cys Lys Val Phe Phe Arg Arg Ser Val
 145 150 155 160
 Thr Lys Ser Ala Val Tyr Cys Cys Lys Phe Gly Arg Ala Cys Glu Met
 165 170 175
 Asp Met Tyr Met Arg Arg Lys Cys Gln Glu Cys Arg Leu Lys Lys Cys
 180 185 190
 Leu Ala Val Gly Met Arg Pro Glu Cys Val Val Pro Glu Asn Gln Cys
 195 200 205
 Ala Met Lys Arg Arg Glu Glu Lys Ala Gln Lys Glu Lys Asp Lys Met
 210 215 220

H1776US_sequ list .txt

Thr Thr Ser Pro Ser Ser Gln His Gly Gly Asn Gly Ser Leu Ala Ser
 225 230 235 240
 Gly Gly Gly Gln Asp Phe Val Lys Lys Glu Ile Leu Asp Leu Met Thr
 245 250 255
 Cys Glu Pro Pro Gln His Ala Thr Ile Pro Leu Leu Pro Asp Glu Ile
 260 265 270
 Leu Ala Lys Cys Gln Ala Arg Asn Ile Pro Ser Leu Thr Tyr Asn Gln
 275 280 285
 Leu Ala Val Ile Tyr Lys Leu Ile Trp Tyr Gln Asp Gly Tyr Glu Gln
 290 295 300
 Pro Ser Glu Glu Asp Leu Arg Arg Ile Met Ser Gln Pro Asp Glu Asn
 305 310 315 320
 Glu Ser Gln Thr Asp Val Ser Phe Arg His Ile Thr Glu Ile Thr Ile
 325 330 335
 Leu Thr Val Gln Leu Ile Val Glu Phe Ala Lys Gly Leu Pro Ala Phe
 340 345 350
 Thr Lys Ile Pro Gln Glu Asp Gln Ile Thr Leu Leu Lys Ala Cys Ser
 355 360 365
 Ser Glu Val Met Met Leu Arg Met Ala Arg Arg Tyr Asp His Ser Ser
 370 375 380
 Asp Ser Ile Phe Phe Ala Asn Asn Arg Ser Tyr Thr Arg Asp Ser Tyr
 385 390 395 400
 Lys Met Ala Gly Met Ala Asp Asn Ile Glu Asp Leu Leu His Phe Cys
 405 410 415
 Arg Gln Met Phe Ser Met Lys Val Asp Asn Val Glu Tyr Ala Leu Leu
 420 425 430
 Thr Ala Ile Val Ile Phe Ser Asp Arg Pro Gly Leu Glu Lys Ala Gln
 435 440 445
 Leu Val Glu Ala Ile Gln Ser Tyr Tyr Ile Asp Thr Leu Arg Ile Tyr
 450 455 460
 Ile Leu Asn Arg His Cys Gly Asp Ser Met Ser Leu Val Phe Tyr Ala

465 470 475 480

Lys Leu Leu Ser Ile Leu Thr Glu Leu Arg Thr Leu Gly Asn Gln Asn
485 490 495

Ala Glu Met Cys Phe Ser Leu Lys Leu Lys Asn Arg Lys Leu Pro Lys
500 505 510

Phe Leu Glu Glu Ile Trp Asp Val His Ala Ile Pro Pro Ser Val Gln
515 520 525

Ser His Leu Gln Ile Thr Gln Glu Glu Asn Glu Arg Leu Glu Arg Ala
530 535 540

Glu Arg Met Arg Ala Ser Val Gly Gly Ala Ile Thr Ala Gly Ile Asp
545 550 555 560

Cys Asp Ser Ala Ser Thr Ser Ala Ala Ala Ala Ala Ala Gln His Gln
565 570 575

Pro Gln Pro Gln Pro Gln Pro Gln Pro Ser Ser Leu Thr Gln Asn Asp
580 585 590

Ser Gln His Gln Thr Gln Pro Gln Leu Gln Pro Gln Leu Pro Pro Gln
595 600 605

Leu Gln Gly Gln Leu Gln Pro Gln Leu Gln Pro Gln Leu Gln Thr Gln
610 615 620

Leu Gln Pro Gln Ile Gln Pro Gln Pro Gln Leu Leu Pro Val Ser Ala
625 630 635 640

Pro Val Pro Ala Ser Val Thr Ala Pro Gly Ser Leu Ser Ala Val Ser
645 650 655

Thr Ser Ser Glu Tyr Met Gly Gly Ser Ala Ala Ile Gly Pro Ile Thr
660 665 670

Pro Ala Thr Thr Ser Ser Ile Thr Ala Ala Val Thr Ala Ser Ser Thr
675 680 685

Thr Ser Ala Val Pro Met Gly Asn Gly Val Gly Val Gly Val Gly Val
690 695 700

Gly Gly Asn Val Ser Met Tyr Ala Asn Ala Gln Thr Ala Met Ala Leu
705 710 715 720

H1776US_sequ list .txt

Met Gly val Ala Leu His Ser His Gln Glu Gln Leu Ile Gly Gly val
725 730 735

Ala val Lys Ser Glu His Ser Thr Thr Ala
740 745

<210> 33
<211> 462
<212> PRT
<213> Artificial sequence

<220>
<223> /note="Description of artificial sequence: RXR from pVgRXR"

<400> 33

Met Asp Thr Lys His Phe Leu Pro Leu Asp Phe Ser Thr Gln val Asn
1 5 10 15

Ser Ser Leu Thr Ser Pro Thr Gly Arg Gly Ser Met Ala Ala Pro Ser
20 25 30

Leu His Pro Ser Leu Gly Pro Gly Ile Gly Ser Pro Gly Gln Leu His
35 40 45

Ser Pro Ile Ser Thr Leu Ser Ser Pro Ile Asn Gly Met Gly Pro Pro
50 55 60

Phe Ser val Ile Ser Ser Pro Met Gly Pro His Ser Met Ser val Pro
65 70 75 80

Thr Thr Pro Thr Leu Gly Phe Ser Thr Gly Ser Pro Gln Leu Ser Ser
85 90 95

Pro Met Asn Pro val Ser Ser Ser Glu Asp Ile Lys Pro Pro Leu Gly
100 105 110

Leu Asn Gly val Leu Lys val Pro Ala His Pro Ser Gly Asn Met Ala
115 120 125

Ser Phe Thr Lys His Ile Cys Ala Ile Cys Gly Asp Arg Ser Ser Gly
130 135 140

Lys His Tyr Gly val Tyr Ser Cys Glu Gly Cys Lys Gly Phe Phe Lys
145 150 155 160

Arg Thr val Arg Lys Asp Leu Thr Tyr Thr Cys Arg Asp Asn Lys Asp
165 170 175

Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln Tyr Cys Arg Tyr
Page 31

180

Gln Met Cys Leu Ala Met Gly Met Lys Arg Glu Ala Val Gln Glu Glu
195 200 205

Arg Gln Arg Gly Lys Asp Arg Asn Glu Asn Glu Val Glu Ser Thr Ser
210 215 220

Ser Ala Asn Glu Asp Val Pro Val Glu Arg Ile Leu Glu Ala Glu Leu
225 230 235 240

Ala Val Glu Pro Lys Thr Glu Thr Tyr Val Glu Ala Asn Val Gly Leu
245 250 255

Asn Pro Ser Ser Pro Asn Asp Pro Val Thr Asn Ile Cys Gln Ala Ala
260 265 270

Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro His
275 280 285

Phe Ser Glu Leu Pro Leu Asp Asp Gln Val Ile Leu Leu Arg Ala Gly
290 295 300

Trp Asn Glu Leu Leu Ile Ala Ser Phe Ser His Arg Ser Ile Ala Val
305 310 315 320

Lys Asp Gly Ile Leu Leu Ala Thr Gly Leu His Val His Arg Asn Ser
325 330 335

Ala His Ser Ala Gly Val Gly Ala Ile Phe Asp Arg Val Leu Thr Glu
340 345 350

Leu Val Ser Lys Met Arg Asp Met Gln Met Asp Lys Thr Glu Leu Gly
355 360 365

Cys Leu Arg Ala Ile Val Leu Phe Asn Pro Asp Ser Lys Gly Leu Ser
370 375 380

Asn Pro Ala Glu Val Glu Ala Leu Arg Glu Lys Val Tyr Ala Ser Leu
385 390 395 400

Glu Ala Tyr Cys Lys His Lys Tyr Pro Glu Gln Pro Gly Arg Phe Ala
405 410 415

Lys Leu Leu Leu Arg Leu Pro Ala Leu Arg Ser Ile Gly Leu Lys Cys
420 425 430

H1776US_sequ list .txt

Leu Glu His Leu Phe Phe Phe Lys Leu Ile Gly Asp Thr Pro Ile Asp
435 440 445

Thr Phe Leu Met Glu Met Leu Glu Ala Pro His Gln Met Thr
450 455 460